SUMMARY

S-1 INTRODUCTION/BACKGROUND

The Carlsbad Municipal Water District (CMWD) and Carlsbad Sewer District (CSD) propose to implement the Water and Sewer Master Plan Updates. This Draft Program Environmental Impact Report (EIR) addresses the potential environmental consequences of the updated Master Plan projects.

The CMWD and CSD are responsible for the respective maintenance, operations, and management of water distribution and sewer collection systems in the City of Carlsbad (City). Each District proposes to implement an update to their Master Plan for the provision of infrastructure services throughout the City. The Water Master Plan and Sewer Master Plan represent comprehensive programs for the phased and orderly development of water and sewer utilities for future needs of the City. They consist of individual capital improvement projects to construct new facilities and modify or expand existing facilities that would be needed to implement the Master Plan Updates.

The CMWD Board of Directors is the decision-making body for the CMWD. The Carlsbad City Council is the decision-making body for the CSD. Together, CMWD and CSD will be Co-Lead Agencies in preparing this Program Environmental Impact Report (EIR) in accordance with the California Environmental Quality Act of 1970 (CEQA) statutes (Cal. Pub. Res. Code, § 21000 et seq., as amended) and implementing State CEQA Guidelines (Cal. Code Regs., Title 14, § 15000 et seq., 1998).

S-2 PURPOSE AND SCOPE OF REPORT

The purpose of this Program EIR is to assess and disclose potential impacts to the physical environment associated with construction and operation of the proposed updates to the Water and Sewer Master Plans. This document provides program-level, and in some cases project-level, information for consideration by decision-makers and the general public.

This Program EIR focuses on the 10 issue areas of Aesthetics; Air Quality; Biological Resources; Cultural Resources; Geology and Soils; Hazards and Hazardous Materials; Hydrology and Water Quality; Land Use and Planning; Noise; and Transportation/Traffic. Other issue areas, including Public Services and Recreation, are not evaluated in detail in *Chapter 4.0* of this Program EIR and are addressed as required by CEQA in *Section 6.4* (Effects Not Found to be Significant).

Chapter 2.0 describes the project in detail, including the project's objectives and characteristics. Chapter 3.0 provides the existing environmental setting. The Environmental Analysis section of the Program EIR (Chapter 4.0) addresses each relevant issue in detail by describing existing conditions, discussing potential impacts and their significance, and proposing mitigation measures to avoid or reduce identified significant impacts. The mitigation measures will be incorporated into a Mitigation Monitoring and Reporting Program (MMRP) to be adopted by the Districts as conditions of approval for the project. Cumulative impacts are assessed in Chapter 5.0, and other considerations required by CEQA are discussed in Chapter 6.0. Alternatives to the proposed project are addressed in Chapter 7.0. Chapter 8.0 identifies the list of preparers, and Chapter 9.0 provides the references used in the preparation of this document.

S-3 ENVIRONMENTAL PROCEDURES UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

This Program EIR has been prepared by the CMWD and CSD in accordance with the requirements of CEQA and the State CEQA Guidelines, as amended. An EIR is an informational document that is designed to inform decision-makers, other responsible or interested agencies, and the general public of the potential environmental effects of a proposed project; to examine and implement methods of eliminating or reducing any potentially adverse impacts; and to consider alternatives to the project as proposed. While CEQA requires that major consideration be given to avoiding environmental damage, the lead agency(ies) must balance adverse environmental effects against other public objectives, including economic and social goals, in determining whether and in what manner a project should be approved.

To identify key issues and concerns relevant to the scope of the Program EIR, the Districts encouraged participation in the environmental review process from public agencies, special interest groups, and the general public. A major component of this process is public scoping. Scoping is a process designed to determine the breadth of issues to be addressed in the Program EIR. The aspects of the public scoping discussed in this section include the Notice of Preparation (NOP) and areas of controversy identified as a result of public scoping.

Notice of Preparation

The State CEQA Guidelines include requirements for an early and open process to



determine the scope of issues that should be addressed prior to implementation of a proposed action (State CEQA Guidelines, § 15082 and 15083). The Districts initiated the scoping process on April 28, 2003 through issuance of an NOP that included distribution to the State Clearinghouse (SCH) at the California Office of Planning and Research. The SCH monitors compliance of state agencies in providing timely responses and assigned state identification number (SCH #2003051014) to this EIR. The NOP is included in *Appendix A*.

The NOP provided notification to all federal, state, and local agencies involved with funding or approval of the project, and to other interested organizations and members of the public, that an EIR will be prepared for this project. The NOP was intended to encourage interagency communication concerning the proposed action and provide sufficient background information about the proposed action so that agencies, organizations, and individuals could respond with specific comments and questions on the scope and content of the Program EIR.

The Districts held a 30-day public review period to solicit comments on the NOP, beginning on April 28 and ending on June 1, 2003. *Appendix A* contains the eight comment letters received in response to the NOP.

Use of the Program EIR

A Program EIR will be used to analyze the first-tier effects of the Master Plan Updates. First-tier EIRs typically cover issues in a broad generalized level of analysis. A Program EIR is typically used for an agency program or series of actions that can be characterized as one large project. Typically, such a project involves actions that are closely related geographically (Cal. Code of Regs., Title 14, § 15168(a)(1)), for agency programs (§ 15168(a)(3)), or as individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways (§ 15168(a)(4)). Program EIRs generally analyze broad environmental effects of the program with the acknowledgment that site-specific environmental review may be required for particular aspects of portions of the program when those aspects are proposed for implementation (§ 15168(a)).

Once the Program EIR is prepared for the Master Plan Updates, subsequent (or secondtier) activities within the program must be evaluated to determine whether an additional CEQA document needs to be prepared. When the subsequent activities involve sitespecific operations, the City would use a written checklist to document its determination



whether the environmental effects of the operation were covered in the Program EIR. If the Program EIR addresses the program's effects as specifically and comprehensively as possible, many subsequent activities could be found to be within the Program EIR scope and additional environmental documentation would not be required (§ 15168(c)).

If a subsequent activity would have effects that are not within the scope of the Program EIR, the City of Carlsbad would need to prepare a new Initial Study leading to either a Negative Declaration, Mitigated Negative Declaration, or an EIR. Subsequent CEQA documents would incorporate by reference the general discussions from this broader Program EIR, primarily concentrating on the issues specific to the action being evaluated.

At the time the Initial Study is performed, the appropriate responsible agency or agencies would be identified. Such agencies would be noticed of the City's intention to implement or approve the project at the time of public noticing of any such intent to approve or implement the project. The Initial Study is prepared to analyze whether the subsequent project may cause any significant effect on the environment that was not examined in the Program EIR and whether the subsequent project was described in the Program EIR as being within the scope of the Program EIR.

If the lead agency, based on the Initial Study, determines that a proposed subsequent project would have no additional effect on the environment that was not identified in the Program EIR and that no new or additional mitigation measures or alternatives may be required, the lead agency is to make a written finding based upon the information contained in the Initial Study that the subsequent project is within the scope of the project covered by the Program EIR.

Additional procedures for analyzing second-tier projects are described in Section 4.0.

S-4 AREAS OF KNOWN CONTROVERSY

Commentors on the NOP expressed concerns about potential impacts to energy resources, archaeological resources, impacts to water supply resulting from a proposed seawater desalination project, biological resources including wetlands, sensitive plant and animal species, and impacts to the Agua Hedionda Lagoon. These concerns have been identified as areas of known controversy.



S-5 PROJECT OBJECTIVES

The CMWD and CSD propose to implement the Master Plan Updates in order to:

- ! Make facility improvements on aging wastewater infrastructure;
- ! Increase capacity as necessary;
- ! Facilitate identified expansion needs; and
- ! Reduce maintenance costs.

In addition, in the case of the CSD, a project objective is to reduce the potential for wastewater overflows.

S-6 PROJECT LOCATION

The project site is located in the northern part of San Diego County within the City of Carlsbad as shown in *Figure 2-1*. All project components would be located within the Districts' boundaries, with two exceptions, as shown in *Figure 2-2* (refer to Chapter 2). A proposed water line upsize at the eastern end of Palomar Airport Road (component 26) would be located within the City of San Marcos, and the abandonment of nine water wells is proposed (component 32) near Foussat Road within the City of Oceanside.

S-7 PROJECT CHARACTERISTICS

The 2003 Master Plan Updates for Water and Sewer were assembled using the following assumptions, data, and methods:

- ! Inventorying data of existing facilities;
- ! Examining water billing records for existing development;
- ! Employing the City's Growth Management Database for future development projections;
- ! Applying unit factors for anticipated demand;
- ! Using models for future infrastructure needs and sizing; and
- ! Calculating fees derived based on estimated construction costs



The Master Plan Updates consist of multi-year studies for facility improvements within the Districts, and identify infrastructure needs to accommodate demands from future development through City buildout. The plans include a review of existing and projected flows, capacity analyses, existing conditions assessment, Capital Improvement Program (CIP), and revisions to the sewer and water connection fee programs. They would establish a connection fee program to fund buildout water and sewer infrastructure identified as part of the planning process. Therefore, three actions are included in the overall project: adoption of the two Master Plan Updates and adoption of the connection fee program. The connection fee program would result in economic effects in that it would update the fee structure used to obtain funds for capital projects. As such, the connection fee program is not subject to CEQA and will not be discussed in the EIR. However, CEQA requires that the lead agencies make findings for certification of the project, particularly because the project requires an amendment to the City's Municipal Code. Accordingly, the City would make findings for the connection fee program exemption in the final environmental documentation.

S-8 AFFECTED ENVIRONMENT

The environmental setting for the proposed Master Plan Updates includes all 84 project sites within the Cities of Carlsbad, Oceanside, and San Marcos in the northern portion of San Diego County, California. The environmental setting is described in terms of its general characteristics in *Chapter 3.o.* The environmental setting for each issue area is discussed in more detail in *Chapter 4.o* of this document.

S-9 ENVIRONMENTAL IMPACTS AND CUMULATIVE IMPACTS

The analysis of each environmental issue area in Chapter 4.0 includes a description of the existing conditions within the project study area; the criteria for determining significance; an evaluation of how the specific resources would be affected by implementation of the proposed project; program-level mitigation measures to reduce significant impacts; and residual impacts after mitigation.

The study area lies within the Cities of Carlsbad, Oceanside, and San Marcos. Refer to *Figure 2-1* for a vicinity map. The evaluation in *Chapter 4.0* is organized generally by the category of environmental effect anticipated by a certain project component.

Approach to Impact Analysis

The Water and Sewer Master Plan Updates include a total of 84 project components. The analysis contained in this Program EIR is considered to be a first-tier level of analysis for the Master Plan Updates. Impacts are summarized in *Tables S-1* and *S-2*. The data in these tables has several uses.

Primarily, *Tables S-1* and *S-2* are used to identify those components that would require additional CEQA review, and as described in *Section 1.3*, additional CEQA review could take the form of a Negative Declaration, Mitigated Negative Declaration, or EIR. Accordingly, *Tables S-1* and *S-2* also identify the project components that would not result in environmental effects as a result of construction or operation. These project components would not necessitate additional, second-tier (or project-level) environmental review, as their effects have been adequately assessed in this Program EIR.

Tables S-1 and S-2 are designed to serve as a guide for the evaluation of each project component as it comes forward for approval or implementation. Tables S-1 and S-2 are based on known conditions and an evaluation of probable future conditions. Since future conditions may change, the first step in environmental review of future projects under this Program EIR should be to ascertain if future conditions are different from present assumptions, and to determine if environmental review has already been accomplished. For example, where pipelines are assumed in this Program EIR to be located in street rights-of-way, this first check should include affirming the assumption. Conditions evaluated at this stage for any change could include sizing, location, site disturbance, or other factors. If conditions are as assumed, City staff shall use the following procedure to establish mitigation on a project-specific basis for all issues where the potential for mitigation requirements is indicated.

- ! Each project shall be reviewed to determine if local environmental review has been carried out by the local land use jurisdiction as part of a project for which the local land use jurisdiction was the lead agency under CEQA.
- ! If local review was carried out under CEQA, the City will determine if that review for each issue was sufficient to meet the City's requirements. If so, further environmental review by the City shall not be required.



- ! If further environmental review by the City is required, the City shall review project plans to determine if there is a potential for the project to have a significant effect on the environment using the *Tables S-1* and *S-2* as a guide, but with the possibility of changed future conditions in mind.
- ! Where indicated, environmental review of subsequent projects with the potential for a significant effect or effects shall include the applicable studies, surveys, coordination, or other procedures specified in *Chapter 4* of this Program EIR. Biological or cultural resource surveys or jurisdiction coordination for traffic issues, for instance, may be needed to establish project-specific conditions and mitigation measures.
- ! Where project-specific studies or other information indicate that significant effects would result and feasible mitigation be implemented to reduce the effect to a level below significance, a Mitigated Negative Declaration may be prepared for the project under review.
- ! If project-specific studies indicate that any significant effect would result that cannot be mitigated to a level below significance, a separate project-specific EIR shall be required to address any potential significant effects.

Refer to *Section 1.3* for more information on assessing first- and second-tier impacts of future projects.

Summary of Impacts and Mitigation

Tables S-1 and *S-2* present potential environmental impacts, and mitigation as applicable, for all Water Master Plan and Sewer Master Plan components within the scope of this Program EIR. Projects are identified in the first column by their reference number, which corresponds to the EIR text and *Figure 2-2*. The second column identifies the projects by their name. The remaining columns summarize the anticipated level of environmental effect categorized by CEQA issue area, and describes mitigation if necessary.

It is anticipated that each project will be evaluated by City staff when appropriate to begin design, approval, and implementation. The mitigation identified in *Tables S-1* and *S-2* is the process to be followed by City staff in evaluating the project at that time. The tables are intended to guide City staff in subsequent environmental assessment of



each project, and an Environmental Initial Study will be performed for each project as it is brought forward for implementation. Many of the projects will be carried out as part of private development (mostly residential) projects for which the City has already conducted, is in the process of conducting, or will conduct in the future, separate environmental review. Additional information on the evaluation process is described in the introduction to *Chapter 4.0*.

Based on the analysis in *Chapter 4.0* and *Section 6.4*, the projects identified in the Master Plan Updates were not found to have potentially significant impacts on Aesthetics; Air Quality; Agricultural Resources; Energy Resources; Land Use and Planning; Population and Housing; Public Services; Recreation; or Utilities and Service Systems. As such, these issue areas are not shown in *Tables S-1* and *S-2*.

In addition, some issue areas are not shown in *Tables S-1* and *S-2* because for that issue area, all project components will require site-specific studies, or the specific project components requiring additional studies cannot be determined at this program level of analysis.

For Geology and Soils, all project components will require site-specific geotechnical studies for engineering and design, which would determine the actual level of environmental impact to geology and soils. For impacts to paleontological resources, specific locations of potential impact would be those locations considered to be high- to moderately sensitive in paleontological resources. This specific information would become available at the time of grading. Only those considered to be high- to moderately sensitive in paleontological resources would require additional investigation.

For Hazards and Hazardous Materials, additional project-level analysis is required to determine the significance of potential hazard effects for all project components. Since hazardous materials sites are subject to changing conditions; *e.g.*, closure of known sites, discovery of new hazardous materials sites, site leakages, and/or remediation of existing sites, it is not appropriate to make a significance determination at this program level of analysis. Details on the known hazardous materials locations would need to be investigated at the project level of analysis for individual project components to determine the specifics on location, type, and status of hazardous materials sites that may be affected.

For most environmental issue areas, there would not be residually significant environmental impacts after mitigation measures are applied. The only exception is for cumulative impacts to biological resources, which is described in Section 5.2 of the Program EIR.

TABLE S-1 SUMMARY OF IMPACTS AND MITIGATION – WATER MASTER PLAN

Referen ce Number	Project Component	Biological Resources	Cultural Resources	Hydrology	Noise	Transportat ion/ Traffic
1	New Watermain & PRS – from end of Marron Road east to Tamarack; PRS at Tamarack	vegetation mapping, wetlands delineation, California gnatcatcher, and spring rare plant surveys	Testing required ¹	Potential 303(d) and floodplain effects	No significant impact	Traffic Control Plan required
2	New Watermain – parallel ex. 8" pipeline in Crestview Dr. west of El Camino Real	No significant effect	No significant effect	Potential 303(d) effects	No significant impact	Traffic Control Plan required
3	New Watermain – El Camino Real south from Kelly Dr. to Lisa St.	No significant effect	No significant effect	No significant effects	No significant impact	Traffic Control Plan required
4	New Watermain – Bryant Dr. from Longfellow to El Camino Real, south on El Camino Real to College and NE on College to Badger Lane	No significant effect	No significant effect	Potential 303(d) effects	No significant impact	Traffic Control Plan required
5	Watermain Replacement – upsize existing 20" to 30" along El Camino Real from Cougar Dr. to Faraday Ave including Maerkle Control Valve	No significant effect	No significant effect	Dewatering and discharge effects	No significant impact	Traffic Control Plan required
6	Watermain & PRS – College Blvd from Carlsbad Village Drive south to Cannon Road, PRS	evaluated in Calavera Hills Master Plan EIR	Testing required ¹	Potential 303(d) and floodplain effects	No significant impact	Traffic Control Plan required
7	New Watermain – College Blvd from future intersection with Cannon south to future Tee leading to Maerkle Reservoir	evaluated in Calavera Hills Master Plan EIR	Testing required ¹	Dewatering and discharge effects	No significant impact	Traffic Control Plan required
8	New Watermain – College Blvd from Cannon Road south to Badger Lane	evaluated in Calavera Hills Master Plan EIR	No significant effect	Potential 303(d) effects	No significant impact	Traffic Control Plan required
9	New Watermain in Cannon Rd., from	evaluated in	Testing required ¹	Potential 303(d)	No significant	Traffic

Referen ce Number	Project Component	Biological Resources	Cultural Resources	Hydrology	Noise	Transportat ion/ Traffic
	Merwin Dr. east to intersection with future College Blvd.	Calavera Hills Master Plan EIR		and floodplain effects	impact	Control Plan required
10	New Watermain in College Ave, from Badger Lane north ~1200 ft, then east through future development	evaluated in Cantarini-Holly Springs EIR	Testing required ¹	Dewatering and discharge effects	No significant impact	Traffic Control Plan required
11	New Watermain – connection from terminus of Project #10 to Maerkle Reservoir	vegetation mapping, California gnatcatcher, and spring rare plant surveys	No significant effect	Dewatering and discharge effects	No significant impact	Traffic Control Plan required

Referen ce Number	Project Component	Biological Resources	Cultural Resources	Hydrology	Noise	Transportat ion/ Traffic
12	New Watermain in future extension of Melrose Dr., from PAR north to future Faraday Rd.	evaluated in Carlsbad Raceway/Palomar Forum Business Park MNDs	Testing required ¹	Dewatering and discharge effects	No significant impact	Traffic Control Plan required
13	New Watermain in north El Fuerte St. extension, to future Faraday Rd.	evaluated in Carlsbad Oaks North Specific Plan EIR	No significant effect	Dewatering and discharge effects	No significant impact	Traffic Control Plan required
14	New Watermain in future Faraday Rd. extension, between El Fuerte St. and Melrose Dr.	evaluated in Carlsbad Oaks North Specific Plan EIR	Testing required for CA-SDI- 16048, CA-SDI-16049 and CA-SDI-16054 ¹ . No significant effect for P-37- 024171 and P-	Dewatering and discharge effects	No significant impact	Traffic Control Plan required



Referen ce Number	Project Component	Biological Resources	Cultural Resources	Hydrology	Noise	Transportat ion/ Traffic
			37-024176			
15	New Watermain – El Fuerte Street from PAR south to Rancho Pancho	evaluated in Bressi Ranch and Villages of La Costa EIRs	Testing required ¹	Dewatering and discharge effects	No significant impact	Traffic Control Plan required
16	Watermain Replacement – El Camino Real from Palomar Airport Road south to Cassia Road	partially evaluated in Bressi Ranch EIR; remainder of pipeline is within roadway; impacts would be less than significant	Testing required ¹	Dewatering and discharge effects	No significant impact	Traffic Control Plan required
17	New Watermain – Poinsettia Lane west from Skimmer Ct. to Blackrail Rd.	vegetation mapping, California gnatcatcher, wetlands delineation, and spring rare plant surveys	Testing required ¹	Dewatering and discharge effects	No significant impact	Traffic Control Plan required
18	Watermain Replacement – Poinsettia Road, 1100 feet east of Blackrail Rd.	evaluated in water tank farm project MNDs	No significant effect	Dewatering and discharge effects	No significant impact	Traffic Control Plan required
19	New Watermain – Aviara Parkway at Plum Tree north to Mariposa St, then east to Sapphire Dr.	vegetation mapping, California gnatcatcher, and spring rare plant surveys	No significant effect	Dewatering and discharge effects	No significant impact	
20	New Pump Station – Northeast corner of El Camino Real and Palomar Airport Road	vegetation mapping, California gnatcatcher, and spring rare plant surveys.	No significant effect	Dewatering and discharge effects	No significant impact	Control Plan required
21	New PRS – Intersection of El Fuerte and Corintia St.	No significant effect		Dewatering and discharge effects	No significant impact	No significant

Referen ce Number	Project Component	Biological Resources	Cultural Resources	Hydrology	Noise	Transportat ion/ Traffic
22	New Watermain – Carlsbad Boulevard from Avenida Encinas south to the District boundary	noise assessment and appropriate mitigation for potential noise impacts to nesting sensitive birds	Testing required ¹	Potential 303(d) effects	Noise study necessary for effects to sensitive birds	effect Traffic Control Plan required
23	New Watermain – Cannon Road, 1,800 feet NE from Faraday Road	evaluated in Kelly Ranch EIR	Testing required ¹	Potential 303(d) and floodplain effects	No significant impact	Traffic Control Plan required
24	New Watermain – Parallel ex. pipeline in Poinsettia Rd from Ambrosia Lane to Blackrail Rd.	evaluated in water tank farm project MNDs	No significant effect	Dewatering and discharge effects	No significant impact	Traffic Control Plan required
25	New Watermain – Poinsettia Road from El Camino Real west to Skimmer Court (Poinsettia Lane)	No significant effect	Testing required ¹	Dewatering and discharge effects	No significant impact	Traffic Control Plan required
26	Watermain Replacement – Palomar Airport Road west of SDCWA Conn. #1	No significant effect	No significant effect	Dewatering and discharge effects	No significant impact	Traffic Control Plan required
27	New water reservoir – construct new 375 Zone water reservoir next to existing D-3 Reservoir	evaluated in water tank farm project MNDs	No significant effect	Dewatering and discharge effects	Noise study necessary	Traffic Control Plan required
28	New Water Reservoir – construct buried storage reservoir next to existing Maerkle Reservoir	vegetation mapping, California gnatcatcher, and spring rare plant surveys	No significant effect	Dewatering and discharge effects	Noise study necessary	Traffic Control Plan required
29	Enlarge pump station – Maerkle Pump Station capacity improvements	vegetation mapping, California gnatcatcher, and spring rare plant surveys	No significant effect	Dewatering and discharge effects	Noise study necessary	Traffic Control Plan required
30	PRS upgrade – gross pressure reducing	vegetation mapping	No significant	Potential 303(d)	No significant	No

Referen ce Number	Project Component	Biological Resources	Cultural Resources	Hydrology	Noise	Transportat ion/ Traffic
	station improvements	and potential sensitive species assessment	effect	effects	impact	significant effect
31	New watermain – El Camino crossing at Kelley Dr.	No significant effect	No significant effect	Dewatering and discharge effects	No significant impact	Traffic Control Plan required
32	Well abandonment – Foussat Road well abandonments	vegetation mapping and potential sensitive species assessment	No significant effect	Dewatering and discharge effects	No significant impact	No significant effect
33	Reservoir improvements – Lake Calavera Reservoir improvements	vegetation mapping, vernal pool assessment, least Bell's vireo, California gnatcatcher, and spring rare plant surveys	Testing required ¹	Dewatering and discharge effects	No significant impact	Traffic Control Plan required
34	Intertie upgrade – Oceanside Intertie upgrade	vegetation mapping and potential sensitive species assessment	No significant effect	Potential 303(d) effects	No significant impact	Traffic Control Plan required
35	PRS – install PRS at Cannon Rd. & College Blvd.	evaluated in Calavera Hills Master Plan EIR	Testing required ¹	Dewatering and discharge effects	No significant impact	No significant effect
36	PS upgrades – Calavera PS, College Blvd at Carlsbad Village Dr.	evaluated in Calavera Hills Master Plan EIR	Testing required ¹	Dewatering and discharge effects	Noise study necessary	No significant effect
	Required to Increase Available Fire Flow					
F1	Pipeline replacement – upsize 6" and 4" pipeline in Jeanne Place to end of culde-sac	No significant effect	No significant effect	Dewatering and discharge effects	No significant impact	Control Plan required
F2	Pipeline replacement – upsize 6"	No significant effect	Testing required ¹	Dewatering and	No significant	Traffic

Referen ce Number	Project Component	Biological Resources	Cultural Resources	Hydrology	Noise	Transportat ion/ Traffic
	pipeline in Nob Hill Drive to end of cul- de-sac			discharge effects	impact	Control Plan required
F3	Pipeline replacement – upsize 6" pipeline in Holly Brae Lane and Alder Ave east of Skyline Dr.	No significant effect	No significant effect	Dewatering and discharge effects	No significant impact	Traffic Control Plan required
F4	Pipeline replacement – upsize 6" pipeline in Falcon Dr. East of Donna Dr. To cul-de-sac	No significant effect	No significant effect	Dewatering and discharge effects	No significant impact	Traffic Control Plan required
F5	Pipeline replacement – upsize 6" pipeline in Cynthia Ln & Gregory Dr from Knowles Ave to cul-de-sac	No significant effect	No significant effect	Dewatering and discharge effects	No significant impact	Traffic Control Plan required
F6	Pipeline replacement – upsize 6" pipeline in Tamarack Ave from Highland Dr west to Dair St., and in Adair St to cul-de-sac	No significant effect	No significant effect	Dewatering and discharge effects	No significant impact	Traffic Control Plan required
F7	Pipeline replacement – upsize 6" pipeline in Highland Dr from Yourell Ave to Ratcliff	No significant effect	No significant effect	Dewatering and discharge effects	No significant impact	Traffic Control Plan required
F8	New connection to fire hydrants – switch supply to hydrants at the Calavera Recreation Center from the 580 Zone to the 446 Zone	No significant effect	No significant effect	Dewatering and discharge effects	No significant impact	Traffic Control Plan required
F9	Pipeline replacement – upsize 6" pipeline from Chestnut Ave at Woodland Way to the end of Woodland Way	No significant effect	No significant effect	Dewatering and discharge effects	No significant impact	Traffic Control Plan required
F10	Pipeline replacement – upsize 6" pipeline in Garfield from Chinquapin Ave to end of cul-de-sac	No significant effect	No significant effect	Dewatering and discharge effects	No significant impact	Traffic Control Plan required
F11	Pipeline replacement – upsize 6" pipeline in Arland Rd from Highland to Buena Vista Way	No significant effect	No significant effect	Dewatering and discharge effects	No significant impact	Traffic Control Plan required

Referen ce Number	Project Component	Biological Resources	Cultural Resources	Hydrology	Noise	Transportat ion/ Traffic
F12	New watermain – install parallel pipeline in Highland Dr. from Hillside Dr south to Adams St.		Testing required ¹	Dewatering and discharge effects	No significant impact	Traffic Control Plan required
F13	New watermain – install parallel pipeline in Cove Dr from Park Dr to end	No significant effect	No significant effect	Dewatering and discharge effects	No significant impact	Traffic Control Plan required
F14	Emergency pump – high elevation areas in the vicinity of Obelisco Place/Circle	No significant effect	No significant effect	Dewatering and discharge effects	No significant impact	Traffic Control Plan required

Note:

¹ If the site is located in an area that has already been developed, monitoring during construction is recommended. Depending on monitoring results, testing and data recovery may be necessary to evaluate the cultural resource and to mitigate the impacts.

TABLE S-2 SUMMARY OF IMPACTS AND MITIGATION – SEWER MASTER PLAN

Referenc e Number	Project Component	Biological Resources	Cultural Resources	Hydrology	Noise	Transportatio n/ Circulation
	Avenida Encinas Gravity Sewer	No significant effect	Testing required	Dewatering and discharge effects	impact	Traffic Control Plan required
	North Agua Hedionda Interceptor Rehabilitation – West Segment-Cove Drive to Hoover Street	vegetation mapping, wetlands delineation, California gnatcatcher, potential sensitive shorebird species assessment, and spring rare plant surveys	Testing required ¹	Potential 303(d) effects	No significant impact	Traffic Control Plan required
	North Agua Hedionda Interceptor Rehabilitation – East Segment El Camino Real to Kelly	vegetation mapping, wetlands delineation, California gnatcatcher, least Bell's vireo, and spring rare plant surveys	No significant effect for CA-SDI-209; testing required for CA-SDI-6140 and CA-SDI-9654 ¹	Potential 303(d) effects	No significant impact	Traffic Control Plan required
	North Agua Hedionda Trunk Sewer - Reach NAHT1A	vegetation mapping and California gnatcatcher surveys	No significant effect ¹	Dewatering and discharge effects	No significant impact	Traffic Control Plan required
5	North Batiquitos Interceptor Rehabilitation	vegetation mapping, wetlands delineation, California gnatcatcher, potential sensitive shorebird species assessment, and spring rare plant surveys	Testing required for CA- SDI-608, CA-SDI-6823, CA-SDI-12807, and CA- SDI-12810 ¹ , monitoring during construction for CA-SDI-694, CA-SDI- 6826 and CA-SDI-11953	Potential floodplain effects	No significant impact	Traffic Control Plan required
6	El Camino Sewer	No significant effect	No significant effect	Dewatering and discharge effects	No significant impact	Traffic Control Plan required
7	Sewer Lift Station Repairs/ Upgrades	No significant effect	Testing required for CA-SDI-6751 ¹ ; no significant effect for P-37-15325	Dewatering and discharge effects	Noise study necessary	No significant effect
8	Forest Gravity Sewer and Lift Station	No significant effect	No significant effect	Dewatering and discharge	No significant impact	Traffic Control Plan required

Summary

Referenc e Number	Project Component	Biological Resources	Cultural Resources	Hydrology	Noise	Transportatio n/ Circulation
				effects		
9	Home Plant Lift Station	vegetation mapping and potential sensitive species assessment	No significant effect	Potential 303(d) effects	Noise study necessary	No significant effect
1	La Costa Meadows Sewer Extension	vegetation mapping, California gnatcatcher, and spring rare plant surveys; partially evaluated in Villages of La Costa EIR	Testing required ¹	Potential floodplain effects	No significant impact	Traffic Control Plan required

Referenc e Number	Project Component	Biological Resources	Cultural Resources	Hydrology	Noise	Transportatio n/ Circulation
11	La Golondrina Sewer Extension	partially evaluated in Villages of La Costa EIR	No significant effect	Potential floodplain effects	No significant impact	Traffic Control Plan required
12	Poinsettia Sewage Lift Station Odor and Noise Abatement	partially evaluated in Villages of La Costa EIR	Testing required ¹	Dewatering and discharge effects	No significant impact	No significant effect
13	Sewer Line Refurbishment/ Replacement	each proposed work area should be evaluated for potential sensitive habitat and species occurrence; methods for impact avoidance and reduction shall be implemented during refurbishment and replacement procedures	should be evaluated for potential cultural resources	Dewatering and discharge effects	No significant impact	Traffic Control Plan required
14	Vista/Carlsbad Interceptor Reaches VC1 and VC2	vegetation mapping, wetlands delineation, California gnatcatcher, least Bell's vireo, and spring rare plant surveys	Testing required for CA-SDI-9472, CA-SDI-9474, CA-SDI-5652, and CA-SDI-9967 ¹ ; no significant effect for CA-SDI-9473; data recovery, avoidance and/or capping	Potential 303(d) and floodplain effects	No significant impact	Traffic Control Plan required



Referenc e Number	Project Component	Biological Resources	Cultural Resources	Hydrology	Noise	Transportatio n/ Circulation
			for CA-SDI-628			
15	Gateshead Lift Station	No significant effect	No significant effect	Dewatering and discharge effects	No significant impact	No significant effect
16	Vancouver Lift Station	vegetation mapping and potential sensitive species assessment	Testing required ¹	Potential 303(d) and floodplain effects	No significant impact	No significant effect
17	Simsbury Lift Station	No significant effect	Testing required ¹	Dewatering and discharge effects	No significant impact	No significant effect
18	Villas Lift Station	No significant effect	No significant effect	Dewatering and discharge effects	No significant impact	No significant effect
19	Woodstock Lift Station	No significant effect	Testing required ¹	Dewatering and discharge effects	No significant impact	No significant effect
20	Faraday #14 (Upper) Lift Station	No significant effect	No significant effect	Dewatering and discharge effects	No significant impact	No significant effect
21	Faraday #10 (Lower) Lift Station	No significant effect	No significant effect	Dewatering and discharge effects	No significant impact	No significant effect
22	North Batiquitos Lift Station	vegetation mapping, California gnatcatcher, and spring rare plant surveys	No significant effect	Dewatering and discharge effects	impact	No significant effect
23	Carlsbad trunk Sewer Reaches VCT1A, VCT1B, VCT1C	vegetation mapping, California gnatcatcher, and spring rare plant surveys	Testing required ¹	Potential 303(d) and floodplain effects	impact	Traffic Control Plan required
24	Master Plan Update	No significant effect	No significant effect	Dewatering and discharge	No significant impact	To be determined on

Referenc e Number	Project Component	Biological Resources	Cultural Resources	Hydrology	Noise	Transportatio n/ Circulation
				effects		an individual project basis as concluded in the Program EIR and subsequent environmental documentatio n
25	Sewer Monitoring Program	N/A	N/A	N/A	No significant impact	N/A
26	Sewer Access Hole Rehabilitation	N/A	N/A	N/A	No significant impact	No significant effect
27	Sewer Connection Fee Update	N/A	N/A	N/A	N/A	N/A
28	Vista/Carlsbad Interceptor Reach VC3	vegetation mapping, California gnatcatcher, and spring rare plant surveys	No significant effect	Potential 303(d) and floodplain effects	No significant impact	TCP required
	Buena Vista Lift Station upgrade	vegetation mapping, wetlands delineation, California gnatcatcher, potential sensitive shorebird species assessment, and spring rare plant surveys	No significant effect	Potential 303(d) and floodplain effects	impact	No significant effect
	Buena Vista Lift Station forcemain	vegetation mapping, wetlands delineation, California gnatcatcher, potential sensitive shorebird species assessment, and spring rare plant surveys	Testing required ¹	Potential 303(d) and floodplain effects	No significant impact	·
31	Vista/Carlsbad Interceptor Sewer Reach 11B	vegetation mapping, wetlands delineation, California gnatcatcher, potential sensitive	Testing required for CA-SDI-6751 and CA-SDI-210 ¹ , no significant effect	Potential 303(d) and floodplain	No significant impact	TCP required

Referenc e Number	Project Component	Biological Resources	Cultural Resources	Hydrology	Noise	Transportatio n/ Circulation
		shorebird species assessment, and spring rare plant surveys	for P-37-15325	effects		
	Agua Hedionda Lift Station	No significant effect	No significant effect	Potential 303(d) effects	Noise study necessary	No significant effect
	Lower Vista/Carlsbad Interceptor, Reaches VC13, VC14, and VC15	No significant effect	No significant effect	Dewatering and discharge effects	No significant impact	TCP required
	South Agua Hedionda/Kelly Ranch Lift Station	No significant effect; partially evaluated in Kelly Ranch EIR	Testing required for CA-SDI-6133, CA-SDI-6135, CA-SDI-10671, CA-SDI-10672, CA-SDI-13008, and CA-SDI-9653 ^{1;} monitoring during construction for CA-SDI-5353		Noise study necessary	TCP required

Note:



¹ If the site is located in an area that has already been developed, monitoring during construction is recommended. Depending on monitoring results, testing and data recovery may be necessary to evaluate the cultural resource and to mitigate the impacts.

S-10 OTHER CONSIDERATIONS REQUIRED BY CEQA

Significant Environmental Effects Which Cannot be Avoided if the Proposed Project is Implemented

The Program EIR evaluated the proposed project with respect to Aesthetics; Air Quality; Biological Resources; Cultural Resources; Geology and Soils; Hazards and Hazardous Materials; Hydrology and Water Quality; Land Use and Planning; Noise; Transportation/ Traffic; and Utilities and Service Systems. As described in *Chapter 4.0*, potentially significant impacts would occur for the issue areas of Biological Resources; Cultural Resources; Geology and Soils; Hazards and Hazardous Materials; Hydrology and Water Quality; Noise; and Transportation/Traffic.

As discussed in *Chapter 4.0*, mitigation measures would reduce impacts for all of these CEQA issue areas. With mitigation, the residual impact is less than significant for all issue areas.

Significant Irreversible Environmental Changes Which Would be Caused by the Proposed Project Should it be Implemented

Water and sewer infrastructure components, once constructed, may be considered permanent. Occasionally facilities are abandoned/removed or upgraded once operation has resulted in the deterioration of their working condition. The systems for which water and sewer facilities are a part are integrally dependent on all their working components. Should components become deteriorated, malfunction or obsolete, replacement must occur. Because the implementation of many projects within the Master Plan Updates would be implemented far into the future and because implementation and timing may affect land use decisions, adoption of the Master Plan Updates would leave the commitment of resources open in the future.

The project components would support existing and planned growth within the City and Districts' service areas. Where impacts are significant as defined by CEQA and the City, this Program EIR includes a process to identify and mitigate such impacts. Having said this, impacts such as changes in the visual appearance of a setting or hillside due to a pump station installation would be considered an irreversible change. Implementation of pipeline facilities within sensitive biological areas also may result in irreversible change to the hydrologic and biological environments of these sensitive areas.



Construction of all project components would be carried out according to all applicable engineering standards to reduce, as much as possible, accidents related to offsite runoff during or post-construction. It should be noted that accidents from both human and naturally caused situations can compromise the integrity of best management practice mitigation measures. For example, a severe storm of unprecedented level could impact the area; precautions included in the project to prevent damage from occurring as a result of this type of severe event may be compromised. Depending on the type of disaster and the resources impacted, significant irreversible environmental commitments of resources may occur. However, there will likely be mitigation programs which can partially mitigate for large, unforeseen disasters. Following engineering standards set out in the Master Plan Updates is the best defense against an unforeseen event and therefore an unforseen commitment of resources.

Construction of water and sewer facilities involves the relatively permanent consumption of building materials such as pipeline components, wood for stability structures and energy for digging and earthmoving tasks. These resources, although at some extent in the long-term may be recycled, are considered to be permanently consumed. This type of commitment of resources is neither unusual nor unexpected given the nature of the facilities and is generally understood to be the tradeoff for benefits the system provides to the community.

Growth Inducing Impact of the Proposed Project

Induced growth is that which exceeds the planned growth and results from new developments that would not have taken place in absence of the project. Growth inducement impacts can result in accelerated economic or population growth, or the construction of new housing, that either directly or indirectly resulted from building a project.

Section 15126.2(d) of the CEQA Guidelines requires that EIRs discuss whether a proposed project could:

"...foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of a waste water treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring



construction of new facilities that could cause significant environmental effects. Also (the environmental analysis must) discuss the characteristics of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment."

The proposed project is a multi-year master plan for facility improvements within the CMWD and CSD. The Master Plan Updates include a review of existing and projected flows, design criteria, capacity analyses, existing conditions assessment, and CIP. The improvement projects detailed in the CIP range from minor projects such as manhole replacements, to major infrastructure improvements such as replacement of a sewer main and installation of a new water reservoir. The CIP includes 84 improvement projects to be built by 2020.

Generally, growth-inducing projects possess such characteristics as being located in isolated, undeveloped or underdeveloped areas, necessitating the extension of major infrastructure (e.g., sewer and water facilities, roadways, etc.), or those that could encourage "premature" or unplanned growth (i.e., "leap-frog" development). While infrastructure improvements, like those planned in the Water and Sewer Master Plans' CIPs, raises the issue of growth inducement, the proposed project is not considered to be growth inducing because the proposed project would not provide additional long-term employment opportunities, no residences are planned as part of the proposed project, and no extension of services beyond that currently planned for in respective planning documents (e.g., City of Carlsbad General Plan) is associated with the proposed project.

In calculating flow projections for the project, the Master Plan Updates relied on recent regional population projections published by SANDAG. The ultimate wastewater flow projections were based on existing unit flow generation rates which were then applied to SANDAG 2020 population projections. Therefore, the CIP wastewater projects would not generate additional population or cumulatively exceed official regional or local population projections. In addition, because no unplanned growth would be served by the project, the project would not remove an obstacle to growth.

The facilities in the proposed Master Plan Updates are community service facilities, serving an urban infrastructure necessary to support economic and population growth.



Their size and capacities are predicated on the projected growth that relates to the type of land use and the SANDAG population estimates and projections (SANDAG 2020 Cities/County Forecast). For that reason, the facilities in the Master Plan Updates do not induce growth guided by the City's planning documents.

Effects Not Found to be Significant

The CEQA Guidelines (§ 15128) require that the environmental document include a brief discussion of various environmental issues that were determined not to be significant. This Program EIR addressed all probable or foreseeable possible effects of the proposed project. Based on the discussions presented in *Chapter 4.0*, effects were not found to be significant for the following issue areas: Aesthetics; Air Quality; and Land Use and Planning.

Based on the public scoping process for this project (refer to *Section 1.3.1*), the following issue areas were not considered to be areas of controversy, and were not addressed in *Chapter 4.0* of the EIR. Hence, an evaluation of Agricultural Resources, Energy Resources, Population and Housing, Public Services, Recreation, and Utilities and Service Systems, those issues not addressed in *Chapter 4.0*, is offered in Section 6.4 of this Program EIR.

S-11 ALTERNATIVES

Three alternatives to the proposed project are described in Section 7.0 of the Program EIR and summarized below. For the Master Plan Updates that are the subject of this Program EIR, alternative locations are not possible. However, the Master Plan Updates are comprised of individual improvement projects and there are or may be possible variation in the size, phasing, location, and implementation of many of the individual projects, especially in the later phases. For these reasons, no alternative location for the project is considered, but a discussion of the variability of individual project alternatives, in the context of the existing and planned system, is included.

No Project Alternative

Under the No Project alternative, the proposed Water and Sewer Master Plan Updates would not be adopted by the City of Carlsbad. This does not mean, however, that the facilities in the Master Plan Updates or other facilities based on development and need in the city, would not be constructed. All projects in the Master Plan Updates could be



constructed or implemented on an individual project basis whether or not the Master Plan Updates are adopted. Potential environmental impacts identified in this Program EIR would still be likely to occur. This alternative would, however, deprive the City of Carlsbad of a valuable planning tool, and one that is informative for those interested in the City's future plans and facilities.

Most of the projects in the Master Plan Updates are intended to remedy deficiencies that were identified in the modeling of the City's water and sewer systems or to correct problems or potential problems in the operation of that system. If the Master Plan Updates were not adopted, the deficiencies and potential problems would remain and would still require remedy through, in most cases, the improvement projects that make up the integrated programs in the Master Plan Updates. Likewise, the new projects in the plans are predicated on the improvements needed to make the system adequate to serve the City's planned future growth. Under the No Project alternative, the same improvements would likely be brought forward for approval as individual projects, but in piecemeal fashion and not as an integrated program that had been evaluated as a single environmental project. In addition, the No Project alternative would deprive the City of the opportunity to streamline environmental review of future projects through the use of the Program EIR and subsequent updates. For these reasons, the No Project alternative offers no environmental advantages in either procedures, impacts, or public information over the proposed Master Plan Updates.

Planning and Land Use Alternatives

The Water and Sewer Master Plan Updates were developed using the best available information on population growth; proposed, planned, and forecast growth and development; means of effluent disposal; requirements and recommendations for peak flows, volumes, and facility capacities; and other factors affecting future City water and sewer utilities planning. The planning period for the Master Plan Updates is long-term, extending to 2020, and almost all the factors in such long-range planning are to some degree uncertain. Most land use planning, until projects are implemented as buildout of the City proceeds, is subject to change for a variety of reasons. Thus, the Districts' staff will continue to monitor factors likely to affect land use in the City and identify changes that could affect the forecasts and assumptions used to develop the improvement programs in the Master Plan Updates.

Most of the projects in the Master Plan Updates are upgrading and modification of existing facilities. In such cases, the location of the project is usually fixed. Nonetheless,



adjustments are possible because the Master Plan Updates are guiding documents rather than rigid templates.

Flexibility in the implementation of the Master Plan Updates will occur at a specific project implementation level. Partly as a result of the mitigation program in this Program EIR, evaluation of the individual projects in the Master Plan Updates can occur at the stage of project approval or implementation. Given the speculative and to some degree uncertain nature of future conditions, this process is the only practical way to assure that feasible alternatives to each project, if desirable or necessary, are developed. As an example, if development plans approved for a given area change the street pattern in that area, the location of pipelines projected in the Master Plan Updates may change. If density or type of development in a given area changes, the storage capacity needed to serve that area, and thus the size of water reservoirs may change, and the capacity of sewer collection facilities may also change. Individual project review in the planning stage is the only time an informed decision on such matters can occur.

Environmentally Superior Alternative

As analyzed in *Section 7.1*, the No Project alternative would not result in reduced environmental effects when compared to the proposed project. The proposed project would result in the same or less impacts when compared to the No Project alternative because of its comprehensive program to identify, avoid, and minimize impacts to environmental resources in the overall study area. As such, the proposed project is considered to be the environmentally superior alternative.